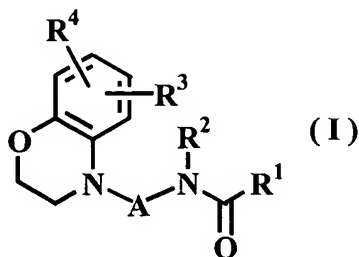


### In the Claims

1. (Original) A benzomorpholine derivative or pharmaceutically acceptable salt thereof represented by formula I,



wherein

A is C<sub>2-4</sub> alkylene, C<sub>2-4</sub> alkenylene, or C<sub>2-4</sub> alkynylene,

R<sup>1</sup> is:

(1) unsubstituted aryl or heteroaryl, or aryl or heteroaryl substituted with one or a plurality of substituents independently selected from the following group,

a) C<sub>1-5</sub> alkyl, b) C<sub>1-5</sub> alkoxy c) C<sub>3-8</sub> cycloalkyl, d) C<sub>1-5</sub> haloalkyl, e) phenyl, f) phenoxy, g) hydroxyl, h) C<sub>1-5</sub> hydroxyalkyl, i) C<sub>1-5</sub> haloalkyloxy, j) mercapto, k) C<sub>1-5</sub> alkylthio, l) C<sub>1-5</sub> haloalkylthio, m) halogen, n) cyano, o) nitro, p) amino, q) C<sub>1-5</sub> alkylamino, r) C<sub>2-10</sub> dialkylamino, s) acyl, t) carboxyl, u) C<sub>2-6</sub> alkyloxycarbonyl, v) mesyl, w) trifluoromethanesulfonyl, and x) tosyl; or

(2) unsubstituted C<sub>1-5</sub> alkyl, C<sub>3-8</sub> cycloalkyl, C<sub>2-10</sub> alkenyl, C<sub>4-10</sub> cycloalkenyl, or C<sub>2-10</sub> alkynyl, or C<sub>1-5</sub> alkyl, C<sub>3-8</sub> cycloalkyl, C<sub>2-10</sub> alkenyl, C<sub>4-10</sub> cycloalkenyl, or C<sub>2-10</sub> alkynyl substituted with one or a plurality of substituents independently selected from the following group,

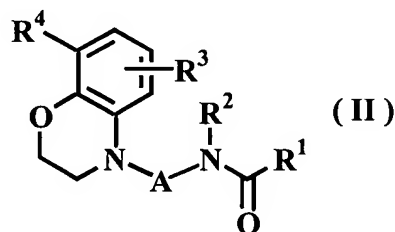
a) phenyl, b) hydroxyl, c) C<sub>1-5</sub> alkyl, d) C<sub>3-8</sub> cycloalkyl, e) C<sub>1-5</sub> haloalkyl, and f) halogen;

R<sup>2</sup> is unsubstituted aryl or heteroaryl, or aryl or heteroaryl substituted with one or a plurality of substituents independently selected from the following group,

a) C<sub>1-5</sub> alkyl, b) C<sub>1-5</sub> alkoxy, c) C<sub>3-8</sub> cycloalkyl, d) C<sub>1-5</sub> haloalkyl, e) phenyl, f) phenoxy, g) hydroxyl, h) C<sub>1-5</sub> hydroxyalkyl, i) C<sub>1-5</sub> haloalkyloxy, j) mercapto, k) C<sub>1-5</sub> alkylthio, l) C<sub>1-5</sub> haloalkylthio, m) halogen, n) cyano, o) nitro, p) amino, q) C<sub>1-5</sub> alkylamino, r) C<sub>2-10</sub> dialkylamino, s) acyl, t) carboxyl, u) C<sub>2-6</sub> alkyloxycarbonyl, v) mesyl, w) trifluoromethanesulfonyl, and x) tosyl;

R<sup>3</sup> is hydrogen, halogen, C<sub>1-5</sub> alkyl, or C<sub>1-5</sub> alkoxy; R<sup>4</sup> is -X- (CH<sub>2</sub>)<sub>n</sub> -COOR<sup>5</sup>, and X is -O-, -S-, or -CH<sub>2</sub>-; R<sup>5</sup> is hydrogen or C<sub>1-5</sub> alkyl; and n is an integer that is 1, 2, or 3.

2. (Previously Presented) The benzomorpholine derivative or pharmaceutically acceptable salt thereof according to claim 1 represented by formula (II),



wherein A, R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup>, and R<sup>4</sup> are as defined in claim 1.

3. (Original) The benzomorpholine derivative or pharmaceutically acceptable salt thereof according to claim 1, wherein A is ethylene.

4. (Original) The benzomorpholine derivative or pharmaceutically acceptable salt thereof according to claim 1, wherein R<sup>1</sup> is unsubstituted aryl or heteroaryl, or aryl or heteroaryl substituted with one or a plurality of substituents which are as defined in claim 1.

5. (Currently Amended) The benzomorpholine derivative or pharmaceutically acceptable salt thereof according to claim [[4]]1, wherein R<sup>1</sup> is unsubstituted phenyl, furyl, thienyl, or pyridyl[[.]]; or R<sup>1</sup> is substituted phenyl, furyl, thienyl, or pyridyl [[substituted]] with one or a plurality of substituents which are as defined in claim 1.

6. (Currently Amended) The benzomorpholine derivative or pharmaceutically acceptable salt thereof according to claim 5, wherein R<sup>1</sup> is unsubstituted phenyl, furyl, thienyl, or pyridyl[[.]]; or R<sup>1</sup> is substituted phenyl, furyl, thienyl, or pyridyl [[substituted]] with one or a plurality of substituents independently selected from the following group,

a) C<sub>1-5</sub> alkyl, b) C<sub>1-5</sub> alkoxy, c) C<sub>1-5</sub> haloalkyl, d) hydroxyl, e) C<sub>1-5</sub> haloalkyloxy, f) C<sub>1-5</sub> alkylthio, g) C<sub>1-5</sub> haloalkylthio, h) halogen, i) cyano, j) C<sub>2-10</sub> dialkylamino, k) acetyl, l) C<sub>2-6</sub> alkyloxycarbonyl, m) mesyl, n) trifluoromethanesulfonyl, and o) tosyl.

7. (Currently Amended) The benzomorpholine derivative or pharmaceutically acceptable salt thereof according to claim 6, wherein R<sup>1</sup> is unsubstituted phenyl, furyl, thienyl, or pyridyl; or R<sup>1</sup> is substituted phenyl, furyl, thienyl, or pyridyl [[substituted]] with one or a plurality of substituents independently selected from the following group,

a) C<sub>1-5</sub> alkyl, b) C<sub>1-5</sub> alkoxy, c) C<sub>1-5</sub> haloalkyl, d) hydroxyl, h) halogen, and i) cyano.

8. (Currently Amended) The benzomorpholine derivative or pharmaceutically acceptable salt thereof according to claim 1, wherein R<sup>2</sup> is unsubstituted phenyl or pyridyl[[.]]; or R<sup>2</sup> is substituted

phenyl or pyridyl [[substituted]] with one or a plurality of substituents which are as defined in claim 1.

9. (Currently Amended) The benzomorpholine derivative or pharmaceutically acceptable salt thereof according to claim 8, wherein  $R^2$  is unsubstituted phenyl or pyridyl[[,]]; or  $R^2$  is substituted phenyl or pyridyl [[substituted]] with one or a plurality of substituents independently selected from the following group,

a)  $C_{1-5}$  alkyl, b)  $C_{1-5}$  alkoxy, c)  $C_{1-5}$  haloalkyl, d) hydroxyl, e)  $C_{1-5}$  haloalkyloxy, f)  $C_{1-5}$  alkylthio, g)  $C_{1-5}$  haloalkylthio, h) halogen, i) cyano, j) amino, k)  $C_{2-10}$  dialkylamino, l) acyl, m)  $C_{2-6}$  alkyloxycarbonyl, n) mesyl, o) trifluoromethanesulfonyl, and p) tosyl.

10. (Currently Amended) The benzomorpholine derivative or pharmaceutically acceptable salt thereof according to claim 9, wherein  $R^2$  is unsubstituted phenyl or pyridyl[[,]]; or  $R^2$  is substituted phenyl or pyridyl [[substituted]] with one or a plurality of substituents independently selected from the following group,

a)  $C_{1-5}$  alkyl, b)  $C_{1-5}$  alkoxy, c)  $C_{1-5}$  haloalkyl, d)  $C_{1-5}$  haloalkyloxy, e)  $C_{1-5}$  alkylthio, f) halogen, and g)  $C_{2-10}$  dialkylamino.

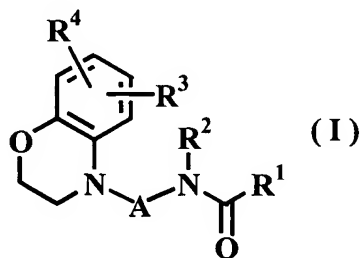
11. (Original) The benzomorpholine derivative or pharmaceutically acceptable salt thereof according to claim 1, wherein X is  $-O-$ .

12. – 16. (Cancelled)

17. (Previously Presented) A pharmaceutical composition comprising:

a pharmaceutically acceptable carrier; and

a benzomorpholine derivative or pharmaceutically acceptable salt thereof represented by formula I,



wherein

A is  $C_{2-4}$  alkylene,  $C_{2-4}$  alkenylene, or  $C_{2-4}$  alkynylene,

$R^1$  is:

(1) unsubstituted aryl or heteroaryl, or aryl or heteroaryl substituted with one or a plurality of substituents independently selected from the following group,

a) C<sub>1-5</sub> alkyl, b) C<sub>1-5</sub> alkoxy c) C<sub>3-8</sub> cycloalkyl, d) C<sub>1-5</sub> haloalkyl, e) phenyl, f) phenoxy, g) hydroxyl, h) C<sub>1-5</sub> hydroxyalkyl, i) C<sub>1-5</sub> haloalkyloxy, j) mercapto, k) C<sub>1-5</sub> alkylthio, l) C<sub>1-5</sub> haloalkylthio, m) halogen, n) cyano, o) nitro, p) amino, q) C<sub>1-5</sub> alkylamino, r) C<sub>2-10</sub> dialkylamino, s) acyl, t) carboxyl, u) C<sub>2-6</sub> alkyloxycarbonyl, v) mesyl, w) trifluoromethanesulfonyl, and x) tosyl; or

(2) unsubstituted C<sub>1-5</sub> alkyl, C<sub>3-8</sub> cycloalkyl, C<sub>2-10</sub> alkenyl, C<sub>4-10</sub> cycloalkenyl, or C<sub>2-10</sub> alkynyl, or C<sub>1-5</sub> alkyl, C<sub>3-8</sub> cycloalkyl, C<sub>2-10</sub> alkenyl, C<sub>4-10</sub> cycloalkenyl, or C<sub>2-10</sub> alkynyl substituted with one or a plurality of substituents independently selected from the following group,

a) phenyl, b) hydroxyl, c) C<sub>1-5</sub> alkyl, d) C<sub>3-8</sub> cycloalkyl, e) C<sub>1-5</sub> haloalkyl, and f) halogen;

R<sup>2</sup> is unsubstituted aryl or heteroaryl, or aryl or heteroaryl substituted with one or a plurality of substituents independently selected from the following group,

a) C<sub>1-5</sub> alkyl, b) C<sub>1-5</sub> alkoxy, c) C<sub>3-8</sub> cycloalkyl, d) C<sub>1-5</sub> haloalkyl, e) phenyl, f) phenoxy, g) hydroxyl, h) C<sub>1-5</sub> hydroxyalkyl, i) C<sub>1-5</sub> haloalkyloxy, j) mercapto, k) C<sub>1-5</sub> alkylthio, l) C<sub>1-5</sub> haloalkylthio, m) halogen, n) cyano, o) nitro, p) amino, q) C<sub>1-5</sub> alkylamino, r) C<sub>2-10</sub> dialkylamino, s) acyl, t) carboxyl, u) C<sub>2-6</sub> alkyloxycarbonyl, v) mesyl, w) trifluoromethanesulfonyl, and x) tosyl;

R<sup>3</sup> is hydrogen, halogen, C<sub>1-5</sub> alkyl, or C<sub>1-5</sub> alkoxy; R<sup>4</sup> is -X-(CH<sub>2</sub>)<sub>n</sub>-COOR<sup>5</sup>, and X is -O-, -S-, or -CH<sub>2</sub>-; R<sup>5</sup> is hydrogen or C<sub>1-5</sub> alkyl; and n is an integer that is 1, 2, or 3.

18.-21. (Cancelled)